

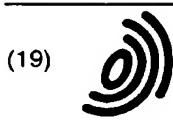
Optical blood culture sensor

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Cited Documents: EP0567232; US5196709; US4822733; US5281825

Abstract

A culture medium and blood specimen are introduced into a sealable glass vial having a head space gas mixture such that a change in the gas mixture composition can be monitored by a chemically sensitive material in the vial comprising a mixture of two fluorescent sensor materials. The first sensor material exhibits a long fluorescence decay time and/or a fluorescence intensity that depend on a first chemical parameter, such as oxygen concentration. The second sensor material exhibits a fluorescence intensity that depends on a second chemical parameter, such as pH or carbon dioxide concentration, the fluorescence decay time of the second sensor material being extremely short.

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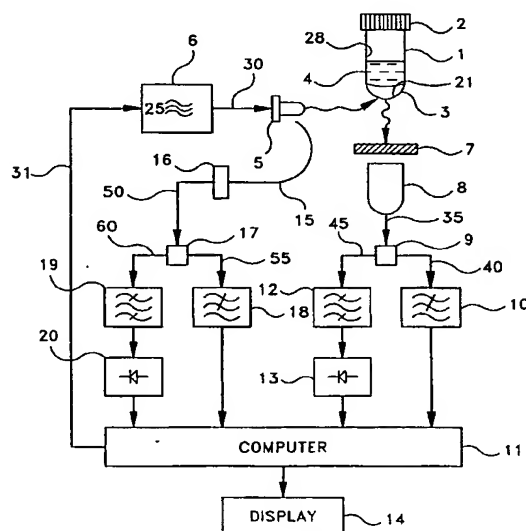
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(54) Optical blood culture sensor

(57) A culture medium and blood specimen are introduced into a sealable glass vial having a head space gas mixture such that a change in the gas mixture composition can be monitored by a chemically sensitive material in the vial comprising a mixture of two fluorescent sensor materials. The first sensor material exhibits a long fluorescence decay time and/or a fluorescence intensity that depend on a first chemical parameter, such as oxygen concentration. The second sensor material exhibits a fluorescence intensity that depends on a second chemical parameter, such as pH or carbon dioxide concentration, the fluorescence decay time of the second sensor material being extremely short.

FIG-1



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